IN THE CLAIMS

1. (Previously Presented) A method for treating defective or degenerated cartilage *in vivo*, comprising administering to a subject a mixture of (i) one or more substances of group A selected from the group consisting of lubricin, proteoglycan 4 (PRG4) and phospholipids (SAPL); and (ii) one or more substances of group B selected from the group consisting of hyaluronic acid, glycosaminoglycan and derivatives of these substances, wherein said substances are dissolved in a solvent.

2. (Previously Presented) The method of claim 1, wherein said phospholipids are surface active in nature.

3. (Previously Presented) The method of claim 1, wherein said hyaluronic acid has a molecular weight of at least 1×10^6 Da.

4. (Previously Presented) The method of claim 1, wherein the ratio by weight of the substances of group A to the substances of group B ranges from 0.05 to 0.40.

5. (Previously Presented) The method of claim 1, wherein the ratio by weight of the substances of group A to the substances of group B ranges from 0.08 to 0.25.

6. (Previously Presented) The method of claim 1, wherein said solvent is a Ringer solution or a physiological salt solution.

7. (Previously Presented) The method of claim 1, wherein the concentration of the substances of group A dissolved in the solvent ranges from 0.02 to 0.05 % by weight.

8. (Previously Presented) The method of claim 1, wherein the concentration of the substances of group B dissolved in the solvent ranges from 0.2 to 0.4% by weight.

9. (Currently Amended) A method for the production of a natural cartilage replacement material, comprising dissolving in a solvent ~~a mixture of (i) one or more substances of group A selected from the group consisting of~~ lubricin, ~~proteoglycan 4 (PRG4) and phospholipids (SAPL); and (ii) one or more substances of group A selected from the group consisting of~~ and hyaluronic acid, ~~glycosaminoglycan~~ and derivatives of these substances.

10. (Previously Presented) The method of claim 9, wherein said natural cartilage replacement material comprises an open-pored, elastic cell-carrier body populated in its pores with chondrocytes, and wherein said mixture, dissolved in a physiologically acceptable solvent, is brought into contact with the chondrocytes.

11. (Previously Presented) The method of claim 10, wherein said solvent is moved over the cell-carrier body with a laminar flow.

12. (Previously Presented) The method of claim 10 or 11, wherein by means of a joint-like device, an axial and a rotational force is exerted simultaneously on the cell-carrier body.

13. (Previously Presented) The method of claim 12, wherein the rotational force is carried out about two axes, which are orthogonal to one another.

14-15. (Cancel)

16. (Previously Presented) The method of claim 1, wherein the mixture comprises lubricin and hyaluronic acid.

17. (Cancel)

18. (New) The method of claim 9, wherein said hyaluronic acid has a molecular weight of at least 1×10^6 Da.

19. (New) The method of claim 9, wherein the ratio by weight of lubricin to hyaluronic acid ranges from 0.05 to 0.40.

20. (New) The method of claim 9, wherein the ratio by weight of lubricin to hyaluronic acid ranges from 0.08 to 0.25.

21. (New) The method of claim 9, wherein said solvent is a Ringer solution or a physiological salt solution.

22. (New) The method of claim 9, wherein the concentration of lubricin to hyaluronic acid ranges from 0.02 to 0.05 % by weight.

23. (New) The method of claim 9, wherein the concentration of lubricin to hyaluronic acid ranges from 0.2 to 0.4% by weight.